



UNIVERSITY OF EMBU

2016/2017 ACADEMIC YEAR

SECOND SEMESTER EXAMINATION

**THIRD YEAR EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN
WATER RESOURCE MANAGEMENT AND BACHELOR OF SCIENCE IN
MANAGEMENT OF AGROECOSYSTEMS AND ENVIRONMENT**

AEM 301: RESEARCH METHODS AND COMMUNICATION

DATE: APRIL 7, 2017

TIME: 8:30-10:30AM

INSTRUCTIONS:

Answer Question ONE and ANY other TWO Questions

QUESTION ONE:

- a) Explain the following terms: [10 marks]
- i) Theory
 - ii) Plagiarism
 - iii) Hypothesis
 - iv) Random sample
 - v) Variables
- b) Discuss the qualities of effective objectives
- c) Differentiate between: [6 marks]
- i) Research hypothesis and Statistical hypothesis
 - ii) Nominal scale and ordinal scale
 - iii) Dependent variable and independent variable
- d) List the Boolean operators and explain how they are used while carrying out literature search [6 marks]
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QUESTION TWO:

- a) Elaborate on the principles for scientific writing [10 marks]
- b) Discuss the purpose of literature review in proposal and scientific paper writing [10 marks]

QUESTION THREE:

Discuss qualitative approaches to research [20 marks]

QUESTION FOUR:

Discuss the general rules to be considered when writing a title of a scientific paper [20 marks]

QUESTION FIVE:

- a) Discuss the objectives of on-farm experimentation [12 marks]
- b) Discuss the general guidelines one should keep in mind when writing the introduction of a scientific manuscript [8 marks]

END